

CURRICULUM VITAE

Mildred Dresselhaus

Department of Electrical Engineering and Computer Science and Department of Physics Massachusetts Institute of Technology Cambridge, Massachusetts 02139 USA

Mildred Dresselhaus is an Institute Professor of Electrical Engineering and Physics at MIT. She served as the Director of the Office of Science at the U.S. Department of Energy in 2000-2001 and chaired the Governing Board of the American Institute of Physics 2003-2008. Dr. Dresselhaus has served as president of the American Physical Society, treasurer of the National Academy of Sciences, president of the American Association for the Advancement of Science and is a member of the National Academy of Engineering. She has received numerous awards, including the U.S. National Medal of Science and 24 honorary doctorates worldwide.

Dr. Dresselhaus' research has covered a wide range of topics in condensed matter and materials physics. She is best known for her work on carbon science and carbon nanostructures. She is also one of the researchers responsible for the resurgence of the thermoelectrics research field 15 years ago by moving the field in the direction of nanostructures. She co-chaired a DOE study on "Basic Research Needs for the Hydrogen Economy" in 2003 and more recently co-chaired of a National Academy Decadal Study of Condensed Matter and Materials Physics.

Mildred Dresselhaus
Profesor elektrotehnike i fizike
Massachusetts Institute of Technology (MIT)

PERSPECTIVES ON PROMOTING REGIONAL RENEWABLE ENERGY RESEARCH AND DEVELOPMENT

Abstract

Recent discussions at the Washington International Renewable Energy Conference (WIREC), hosted in March 2008 by the United States Government, with nearly 9000 participants including 103 ministers from 126 countries, concluded that a major acceleration in the adoption of renewable energy technologies was needed by mid-century. Because of different climatic conditions and societal preferences, regional cooperation is expected to play a major role in the efficient adoption of appropriate renewable energy technologies, and countries with special expertise in specific technologies seem eager to collaborate internationally to promote global goals in renewable energy. A review will be given of what we learned from this conference about renewable energy research and development strategies with a special focus given to using this basic knowledge base to promote the development of renewable energy technologies appropriate to specific regions of the world.

PERSPEKTIVE U PROMICANJU REGIONALNIH ISTRAŽIVANJA I RAZVOJA OBNOVLJIVE ENERGIJE

Sažetak

Nedavne rasprave na Međunarodnoj konferenciji za obnovljivu energiju (WIREC) koja je održana u ožujku 2008. godine u Washingtonu, pod pokroviteljstvom američke Vlade s 9000 sudionika među kojima 103 ministra iz 126 zemalja, dovele su do zaključka da je najveće ubrzanje u usvajanju tehnologija obnovljive energije potrebno ostvariti do sredine ovoga stoljeća. Zbog drugačijih klimatskih uvjeta i društvenog izbora, očekuje se da će regionalna suradnja igrati veliku ulogu u učinkovitoj primjeni odgovarajućih tehnologija obnovljive energije. Zemlje koje posjeduju posebna znanja o konkretnim tehnologijama žele surađivati na međunarodnom planu na promicanju globalnih ciljeva kad je riječ o obnovljivoj energiji. U radu je dan pregled onog što smo naučili iz ove konferencije o istraživanjima obnovljive energije i razvojnim strategijama s posebnim osvrtom na korištenje osnovnih znanja radi poticanja razvoja tehnologija obnovljive energije koje najbolje odgovaraju pojedinim regijama u svijetu.